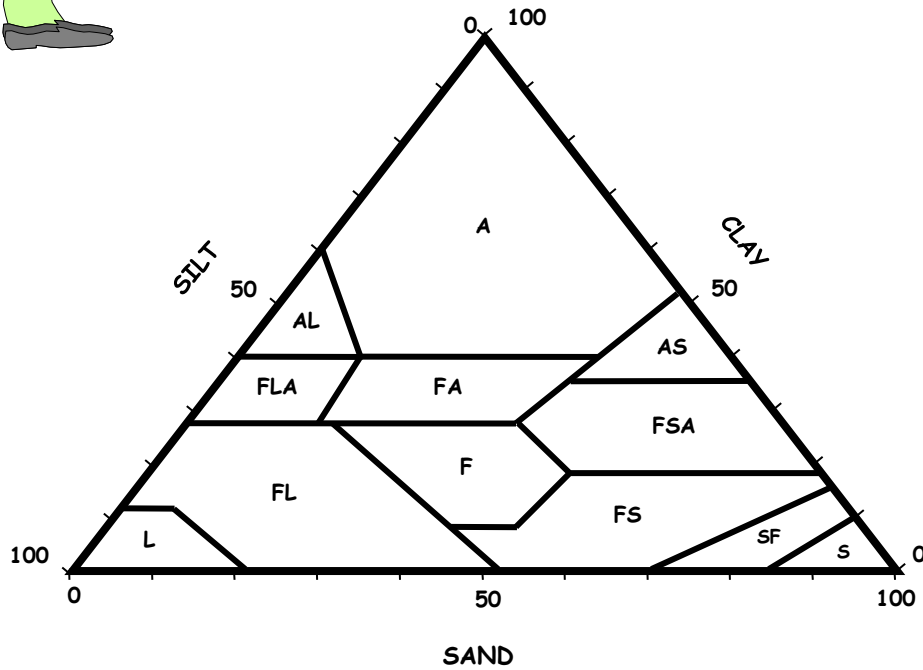


## TRAINING PROGRAMMES

### TRAIN-THE-TRAINERS AND TRAIN-THE-TRAINEES PROGRAMMES ON NEW TECHNOLOGIES

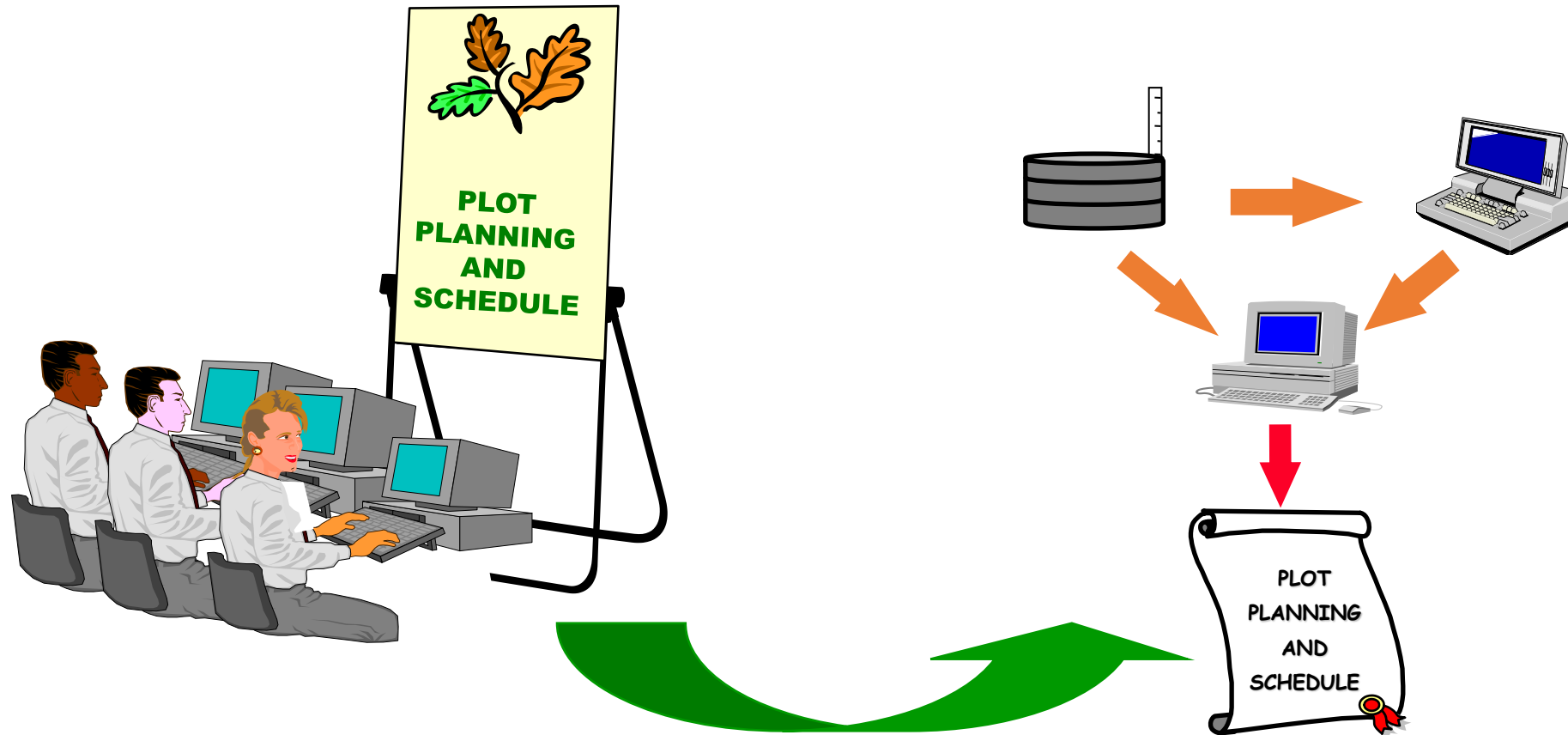
- **WATER MANAGEMENT  
FOR WATER  
CONSERVATION:  
SCHEMES AND  
APPLICATIONS**

# SOIL & WATER MANAGEMENT



- EXCLUSIVE TECHNOLOGIES FOR THE SYNERGISTIC APPLICATION OF CHEMICAL AND PHYSICAL ANALYSIS APPLIED TO SOIL AND WATER MANAGEMENT

# TECHNICAL PLANNING AND MANAGEMENT FOR NOT-IRRIGATED PLOTS (OPTIMIZATION OF LOCAL ENVIRONMENTAL RESOURCES) IN FORESTRY & FARMING PROJECTS



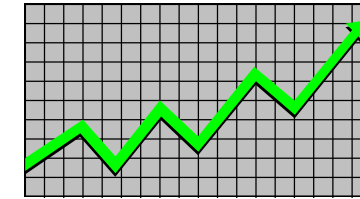
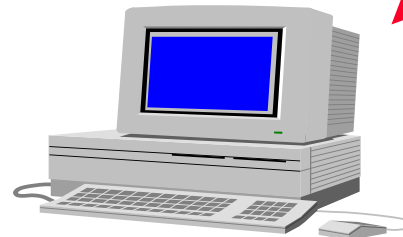
- OPTIMIZATION OF LOCAL ENVIRONMENTAL RESOURCES
- OPTIMIZATION OF NON-IRRIGATED CROPS

# DEDICATED TRAINING PROGRAMMES FOR LOCAL TECHNICIANS IN FORESTRY & FARMING PROJECTS

**On-the-job Training  
(practice) .....**



**.... coupled to theory about  
SUSTAINABLE DEVELOPMENT FOR  
LOCAL AGRO-ECO-SYSTEMS .....**



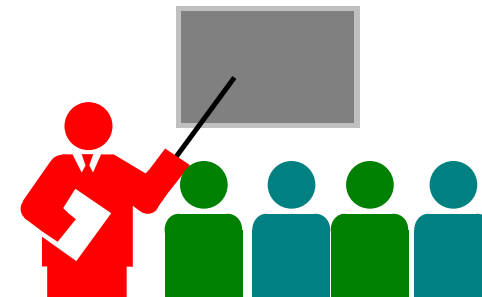
**Planning  
technologies**



**Fertilizers, fertirrigation,  
crop nutrition, irrigation  
optimization, pesticides  
management, fertility  
increase and maintenance**

**Teaching about  
specific  
Hw and Sw**

**Technical lessons, briefings,  
brainstorming, know-how  
transfer**



# The Italian system "Vallerani-Nardi-New Holland" for arid land mechanical preparation

## WATER SAVING TECHNOLOGIES



**WATER SAVING TECHNOLOGIES  
FOR SOIL PREPARATION IN  
ARID, HALF-ARID, SAVANNAH  
AND SALTY AREAS.**

**ENERGY SAVING SYSTEM FOR  
REDUCTION OF FUEL  
CONSUMPTION AND HIGH  
AGRONOMIC EFFICIENCY.**



# GENERAL ITEMS FOR WATER CONSERVATION & ENERGY SAVING IN HERBACEOUS, ARBOREOUS AND SHRUBBY CROPS

## Preface

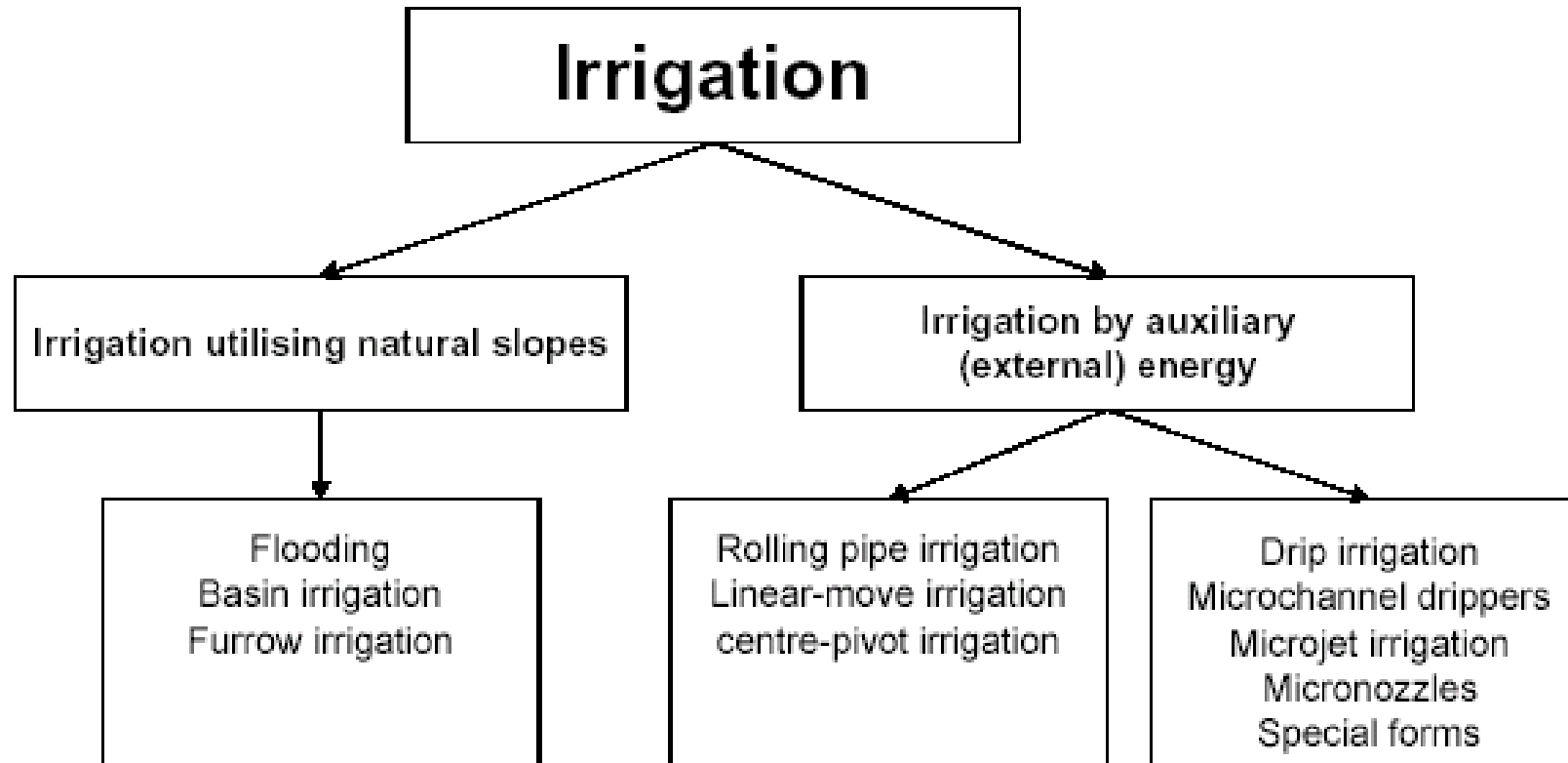
Artificial irrigation is based on traditions stretching back thousands of years.

During this time, though, the spread and methods of irrigation have changed appreciably. In the early days people were able to content themselves with exploiting the annual flooding of the river banks and at most making slight corrections to distribute the water more evenly. Alongside this seasonal method of irrigation using damming and trickle techniques, long-term and continuous irrigation methods have been developed, which for the most part rely on some sort of auxiliary energy. The aim with these is to use water as sparingly as possible.

As a result, the efficiency of water use has been considerably improved, accommodating the necessary enlargement of the area of arable land in spite of limited supplies of water.

**Regarding the effect of irrigation, 0.5 m<sup>3</sup> of water distributed through drip irrigation or 1 m<sup>3</sup> of artificially sprinkled water are equivalent to 5 m<sup>3</sup> when trickle irrigation is used, or 25 m<sup>3</sup> water distributed by means of damming.**

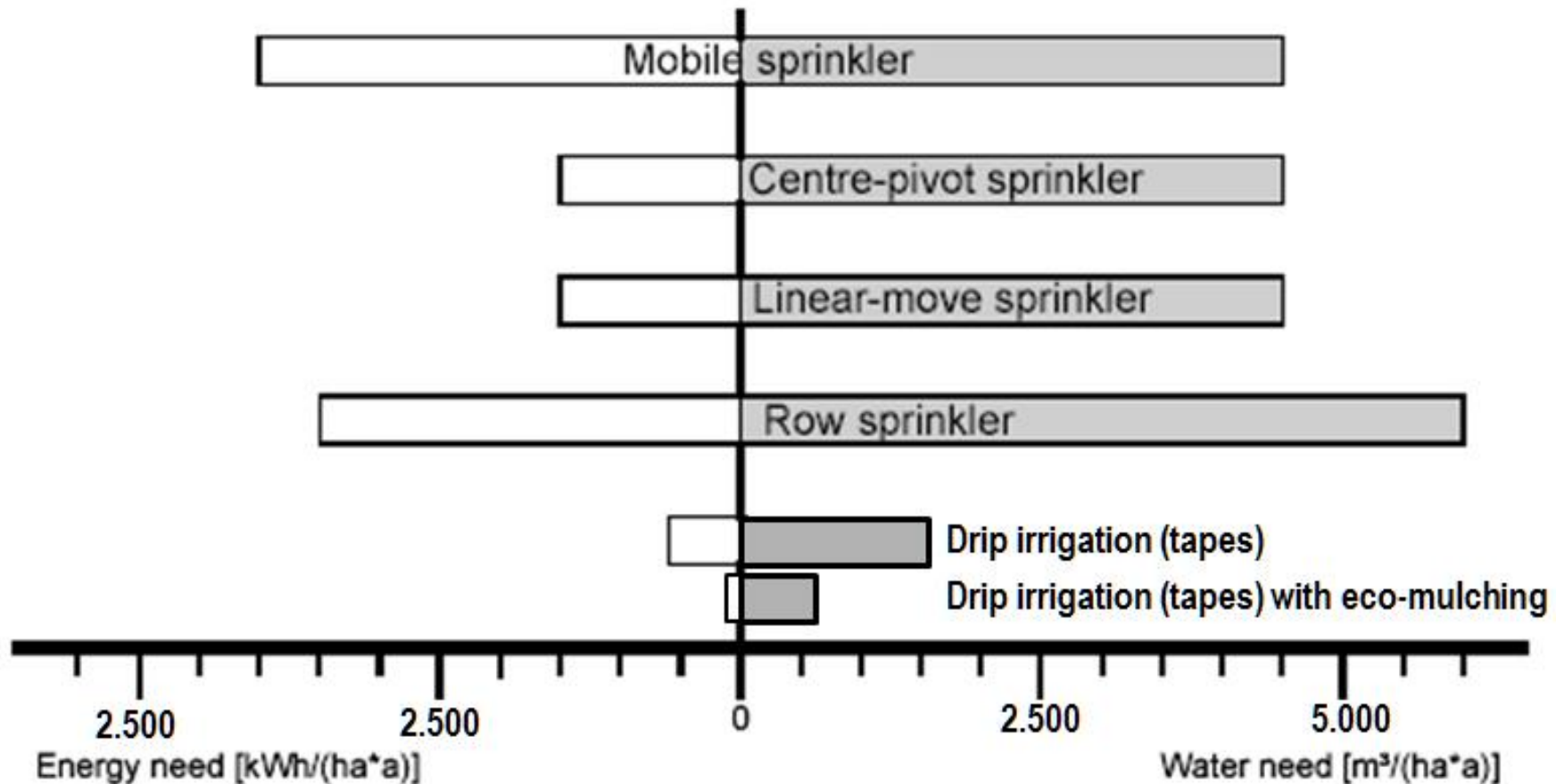
# CLASSIFICATION OF IRRIGATION METHODOLOGIES



*Systematic classification of irrigation methods*

In comparison with traditional irrigation systems,  
**0.5 m<sup>3</sup> water distributed through drip irrigation system is equivalent to a  
25 m<sup>3</sup> water distributed through furrow irrigation.**

# ENERGY & WATER REQUIREMENTS FOR DIFFERENT IRRIGATION SYSTEMS APPLICABLE TO OPEN AIR FARMING



*Energy and water requirements of various irrigation techniques*